

## CAPACITOR LOAD MIXER WITH PAM FUNCTION

## ABSTRACT OF THE DISCLOSURE

5           A phase alternating mixer is implemented by common-base differential transistor pairs, with two cross-coupled pairs providing a switching mixer function with harmonic gating suppression of harmonic responses to the switching mixing by control of local oscillator signals controlling  
10           switching of the differential transistor pairs. Rather than a resistive load, a switched capacitance load and integrating capacitors are connected to the output of the differential transistor pairs to provide first order low pass filtering of the double sideband output from the  
15           differential pairs, with a controlled bandwidth. Channel select switches demultiplex the double sideband signal into a baseband signal.